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See Below and Page 14

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EDITORIAL



AMATEUR ADVISORY COMMITTEES

In all spheres of life there is some system of maintaining orderly conduct, and in this regard Amateur Radio is no exception. We could recall the statement by the noted American statesman Abraham Lincoln who once said, "Government of the people, by the people and for the people."

The Amateurs in Australia are able to govern themselves by the Amateur Advisory Committees which have been created in each State and under its control by the Postmaster General's Department and, as the name implies, the Committee functions in an advisory rather than a disciplinary capacity.

So that every licenced Amateur may have representation on this Committee its membership is composed of W.I.A. and non-W.I.A. personnel.

Each Committee, with the authority of the Department, whenever necessary, issues a notification to any licensee who has transgressed by a breach of the regulations or whose emissions are considered to be below the standard required by the Department. In cases where this notification is ignored the Committee refer the matter to the Department.

In instances where it is necessary to issue a "please explain" the recipient is asked to accept it in the "amateur" spirit and make endeavours to remedy the trouble by consulting the Handbook especially prepared for

the Amateur's guidance so that he may become more familiar with the regulations.

You, no doubt, will appreciate that the task of the observers is one requiring mature judgment and it should be understood that a "please explain" is not forwarded as a result of personal animosity. The Chairman, who is a Departmental representative, ensures that no such discrimination is shown by any member of the Committee towards any Amateur licensee.

The value of the activities of these Committees is fully appreciated in the work which they are doing in assisting to help maintain good operating practices, particularly in the heavily congested bands. Certain of this congestion is caused by key clicks and thumps, spurious emissions which include harmonic radiations and splatter. See that you, as an Amateur, are doing your share by emitting a good clean signal. An application of the golden rule will help clean up the bands.

Besides the foregoing there are other breaches which are committed primarily through thoughtlessness. Amongst these are out of band operation and third party messages. These are viewed very seriously by the Department.

Amateur Radio has been in existence for the past 36 years—what a wonderful record to be proud of. Are you doing your share to maintain this good record? Play the game, please.

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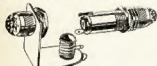
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Using the BC375E Transmitter Coil Units

BY J. DUNCAN,* VK3VZ

The BC375E Transmitter was used in great numbers during the war for communication between Liberator aircraft and ground stations, and for various other jobs where the U.S.A. Army required a medium power transmitter with an input to the power amplifier of about 150 watts.

Frequency changing was accomplished by means of plug in coil units, which contained the necessary condensers and inductances for coverage between 150 and 12,500 Kc. and it is these plug in coil units which we are to deal with in this article.

For those who are interested in the conversion of the whole transmitter in its entirety, it is suggested that they study the excellent article in "QST," December 1946, page 38.

Before the coil units are discussed it will be necessary to have a brief picture of the r.f. line-up of the transmitter.

The transmitter consists of only two stages on the r.f. side, a 211 master oscillator, driving another 211 as a power amplifier. This latter stage being modulated by Class B 211s. The r.f. side being shown in the functional diagram Fig. 1. The master oscillator is a plate tuned Hartley, the grid drive for the p.a. being obtained by tapping off the oscillator tank as shown, and feeding it via the blocking condenser to the p.a. grid. Neutralisation in the p.a. is achieved by taking another tap off the master oscillator tank, the same number of turns on the other side of the oscillator h.t. connection, and feeding it back to the plate of the p.a., neutralisation being achieved by adjustment of the variable condenser located in this lead. It will be seen that as h.t. is present on both the master oscillator and power amplifier tanks, they will be insulated from ground, which may be handy in some of the applications to which the coil units could be put.

COIL UNITS There are seven plug in coil units to each transmitter, the one covering the lower frequency range 200-500 Kc. not being of much use in our case. This unit is the TU26B, the other six units being numbered TU5B to TU10B respectively.

Each of these units is housed in a duralumin case 16" long, 7-15/16" high, and 7-3/16" deep, finished in black crackle. This case is only used to protect the coil box when not in use, the inner case and snap panel being removed by releasing spring fasteners.

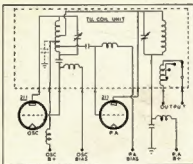
The inner case is divided into two equal sections, the left hand section housing the master oscillator inductance and condenser, and the right hand compartment, the power amplifier inductance, condenser, and ceramic tapping switch for adjustment of loading to the separate antenna loading unit. Also in

the master oscillator section is the neutralising condenser, r.f. chokes, and by-pass condensers.

The master oscillator condenser is constructed of Invar to reduce capacity changes due to temperature variations, is double spaced, and mounted on ceramic blocks—a beautiful condenser for a v.f.o. This condenser is driven through a ceramic flexible coupling, from a 50:1 worm drive. The drum dial is graduated 0 to 100 degrees for a complete revolution, and the scale on the condenser shaft 0 to 25 for a half revolution, giving 2,500 degrees for the full sweep of the condenser. This dial mechanism is spring loaded, has no backlash, and also has a dial lock incorporated.

The master oscillator inductance is tension wound on a ceramic ribbed former, and is fitted with a temperature compensating device inside the former. The neutralising condenser in this compartment is also double spaced, and insulated from the chassis, and is fitted with an insulated knurled disk, which can be set and locked, by removing the calibration chart on the front panel.

The various by-pass condensers in this section are all 3,000 volt types of excellent manufacture.



The right hand compartment contains the p.a. tank circuit and antenna switch, the condenser being double spaced, ceramic insulated, and in all units except the TU5B, which has a smaller value of capacitance, can be changed to split stator by cutting the stator bar on each side of the centre plate with a metal fretsaw. The centre stator plate can then be removed. The condenser is driven through a ceramic flexible coupler by a National type velvet vernier movement of about 5:1 ratio, this drive being fitted with a lock. The p.a. inductance is wound on a ribbed ceramic former, and has housed inside it the output coupling coil, which is taken through a heavily constructed ceramic tapping switch of six positions.

All connections to the remainder of the transmitter from the m.o. and p.a. compartments are brought out to a series of sockets located on an insulated strip running the full length of the coil box.

In the TU5B and TU6B Units frequency coverage is obtained in four and two steps respectively. This is done by switching fixed capacities across the master oscillator and power amplifier inductances. These ceramic switches being ganged by a metal bar. Each of the inductances switched into circuit in the master oscillator compartment, has a special temperature compensating condenser across it. These condensers consist of two round disks which act as the plates, the distance between them being varied by a bi-metal strip.

SUGGESTIONS FOR USE

From the above description it can be seen that the components are of particularly high quality and ideal for our use, and it is difficult to suggest any one particular use for a unit of this kind, as no two Amateurs think alike in that regard, however several ideas come to mind, and are given as a guide.

Firstly the unit can be dismantled for its components which are of very high quality and cannot be obtained elsewhere. The outer dural case only needs a front panel and you have a nice cabinet for receiver, v.f.o., etc. The ceramic coil forms, high voltage fixed condensers and switches all have places in the Ham shack.

Secondly by utilising the master oscillator condenser, and inductance in its existing position, and arranging a small chassis for oscillator and isolator tubes in the left hand compartment, removing all components in the right hand compartment, and installing a buffer amplifier and power supply, the unit can be made into a very nice v.f.o. If an external power supply is to be used, the inductance and condenser originally used for the p.a. could be used for the plate circuit of the buffer amplifier.

Because of the high quality of the condenser and inductance, the "Clapp" oscillator is particularly suited to this unit.

Fourthly the TU5B which has a range of 1.5 to 3 Mc. would make an ideal frequency meter and is discussed in detail later in the article. Because of its 2:1 frequency range, complete coverage of the short wave spectrum up to the highest harmonic audible on a receiver is obtainable.

To determine the bandwidth, and capacities required to bring the various units into the Amateur bands, an oscillator and isolator stage was built on the oscillator being the familiar electron coupled type. In all tests the frame of the oscillator condenser was grounded,

* Technical Editor, 23 Parkside Ave., Balwyn, Victoria.

and the taps on the inductance, other than the centre one, were removed. The remaining tap was used for the cathode. The following data was obtained, and it should be noted that the values of capacity do not apply to the "Clapp" oscillator, but only to the electron coupled circuit, used for the tests.

TU5B.—Range 1.5-3 Mc. Osc. cond. 20-135 pF, p.a. cond. 20-156 pF.

Remarks.—This unit was not available for tests.

TU6B.—Range 3-4.5 Mc. in two steps; (1) 2.85-3.65 Mc., (2) 3.45-5.2 Mc. Osc. cond. 15-75 pF, p.a. cond. 19-116 pF.

Remarks.—No change in oscillator fixed capacities necessary, only necessary to disconnect fixed capacity connected to cathode tap of inductance.

Bandspread on 3.5 to 4 Mc.—925°.

TU7B.—Range 4.5-6.2 Mc. Osc. cond. 23-111 pF, p.a. cond. 19-116 pF.

Remarks.—Parallel capacity required to tune 5.5 Mc. band, 50 pF. zero drift, and 3-30 pF. air trimmer.

Bandspread on 3.5 to 4 Mc.—1471°.

TU8B.—Range 6.2-7.7 Mc., osc. cond. 14-66 pF, p.a. cond. 15-81 pF.

Remarks.—No alterations required, although 3-30 pF. air trimmer

could be added to bring 7 Mc. band to low end of scale, thereby increasing bandspread. P.A. cond. not suitable for alteration to split stator, (all other ranges suitable).

Temperature stability excellent.

Bandspread on 7 Mc. band—183°.

TU9B.—Range 7.7 to 10 Mc., osc. cond. 15-77 pF, p.a. cond. 19-116 pF.

Remarks.—Parallel capacity required to tune 7 Mc. band, 3-30 pF. air trimmer. Remove 400 pF. fixed condenser between cathode tap and ground.

Bandspread on 7 Mc. band—281°.

TU10B.—Range 10-12.5 Mc., osc. cond. 14-62 pF, p.a. cond. 19-116 pF.

Remarks.—Parallel capacity required to reach 7 Mc. band 100 pF. zero drift, and 3-30 air trimmer. Remove 400 pF. condenser from cathode tap to ground.

Bandspread on 7 Mc. band—512°.

General.—The value of the neutralising condenser in all ranges is 8-26 pF.

Any of the v.f.o. circuits described in "Amateur Radio" could be built into one of these units, and if the normal electron coupled oscillator circuit is used a suitable circuit would be the one described in "Amateur Radio," August 1947, which gives details of the method for locating the cathode tap for voltage

stability, quite an important adjustment in an oscillator of this type. If a "Clapp" oscillator is used some adjustment may be necessary to the inductance to locate the Amateurbands correctly, as it is not permissible to use fixed condensers across the inductance in this oscillator.

All screws in these units have been fixed in with an adhesive, which can be softened with paint thinner thereby making them easy to remove.

The condenser which it is necessary to remove, between centre tap and ground, is shown dotted in Fig. 1. Obviously with one side of the inductance grounded, this capacity will be connected between the cathode tap and ground of the electron coupled oscillator.

Finally the following articles describing various conversions possible with these units, are listed below.

1. "What about the BC375E7," "QST," December 1946, page 38.
2. "A surplus parts Bandswitching Transmitter," "QST," September 1948, page 11; Part 2, "QST," October 1948.
3. "Transitron V.F.O. Unit," Short Wave magazine, June 1948, page 235.
4. "TU5B as Frequency-checked V.F.O. Driver," Short Wave magazine, page 464.
5. "TU5B as TU5B," Short Wave Magazine, November 1948, page 624.

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A High Stability Frequency Meter

BY R. HIGGINBOTHAM,* VK3RN

One of the most essential pieces of equipment necessary in the Amateur shack, and one which is required by the P.M.G., is a good, stable frequency meter. With the great popularity of v.f.o. operation these days, an accurate means of checking the frequency transmitted is imperative, and even where crystal control is used, it is necessary to check the frequency of crystals to see that they fall within the Amateur bands. It is also a great help in finding a station who finds it necessary to change frequency. Imagine the saving in time if you can use your frequency meter to narrow down the field of search to a few kilocycles, instead of searching aimlessly up and down the band.

Although this article is written around one of the BC375E coil units described elsewhere in this magazine, with a little extra work and careful adjustments, especially that of temperature compensation, a similar frequency meter could be built up using some of those good parts that are lying around the shack.

After viewing the TU5B tuning unit from the BC375E, the idea came to mind that a stable frequency meter could be constructed, using the oscillator tuning components, and with the dial capable of being read to one part in 2,500, quite a high degree of accuracy could be obtained, especially as the 1.5 to 3 Mc. range is covered in four steps. Further thought revealed that by removing all the p.a. tuning parts, there would be sufficient room in the p.a. compartment to include the necessary valves and power supply.

Upon laying out the parts it was found that there was ample room, so it was decided to add an electron eye and crystal, also a means of modulation, to make the frequency meter more versatile. These two units were added, and during the process of testing, it was realised that the electron eye only gave one check point over the whole range of the meter, which was 2,500 Kc. with the disposals crystal used. As the meter had four switched ranges, this meant that some of the ranges would not have a check point.

The system used in a commercial frequency meter came to mind. Why not replace the electron eye with a straight crystal oscillator? This was done, and resulted in a large number of check points being obtained throughout the four ranges from 1.5 to 3 Mc., due to the beating of the fundamental and harmonics of the two oscillators.

CIRCUIT The final set-up is shown in the schematic diagram. A 6SJ7 is used as an electron coupled oscillator, utilising the original capacity and inductance, dial movement, etc. The output from this oscillator feeds to the output terminal, and also the grid of the 6K8 mixer. The triode section of the 6K8 is connected in a conventional

crystal oscillator circuit, with a slug tuned broadcast coil ("Aegis" osc. M11 with plate coil removed) in the plate circuit of the oscillator tuned to the frequency of the crystal, in this case 2,500 Kc. This crystal was used simply because it was easier to get than a 1,000 Kc. crystal, and apart from the disadvantage of not providing band edge markers, does the job just as well, and at much less cost.

The output of the 6K8 mixer feeds into a triode connected 6SJ7 which serves the dual purpose of audio amplifier for normal frequency meter operation, and audio oscillator for modulation purposes.

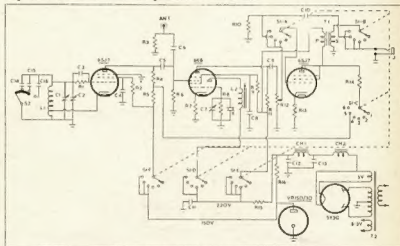
A function switch is used to change the circuit for the functions required, and consists of three banks of two poles with six positions. Although a six position switch is used—to correspond with similar markings on the front panel of the old antenna coupling switch—only four are used. The six positions

operate as follows:—

1. Warm up—all filaments on.
2. Warm up—all filaments on.
3. Crystal—Crystal oscillator only.
4. Operate—E.C.O. only.
5. Modulate—E.C.O. amplitude modulated by 6SJ7 audio oscillator.
6. Check—E.C.O. and Crystal on, 6SJ7 connected as audio amplifier.

The transformer T1 is an ordinary 3:1 interstage job, which happened to be on hand. If the audio oscillator fails to work when switched to position 5, reverse the connections to either the primary or secondary. The frequency of the audio note is controlled by the condenser C10, smaller values raising the pitch.

The power supply is conventional, with the voltage regulator controlling the voltage to all essential points. A two section filter with high value of filter capacity ensures that the note will be clean.



- C1—Original osc. tuning condenser.
C2—5 pF. variable (Corrector).
C3—15 pF.
C4—0.001 uF.
C5—50 pF.
C6—25 pF.
C7—15 pF. variable trimmer.
C8—0.1 uF.
C9—0.02 uF.
C10—0.01 uF.
C11—0.1 uF.
C12, C13—16 uF. electrolytics.
C14, C15, C16—Existing condensers in coil unit.
- R1—250,000 ohm 1 watt.
R2—10,000 " " "
R3—5,000 " " "
R4—50,000 " " "
R5—20,000 " " "
R6—500,000 " " "
R7—150 " " "

- R8—1 megohm 1 watt.
R9—10,000 ohm 1 watt.
R10—50,000 " " "
R11—50,000 " " "
R12—500,000 ohms pot.
R13—1,000 ohms 1 watt.
R14—20,000 " " "
R15—2,500 " " "
R16—7,500 " " "
L1—Original oscillator coil.
L2—Aegis broadcast osc. coil (M11) with plate winding removed.
CH1, CH2—6 H. 60 Ma. Rola chokes.
T1—Standard audio transformer.
T2—385-0-385 v., 60 Ma., 5v., 6.3 v. transformer.
J—Phone jack.
Sw1A—F—5 bank, 2 pole, 6 position switch.
Sw2—Existing band switch in coil unit.
X—Crystal, 2.5 Mc.

* 43 Eleanor St., Ashburton, E.13, Vic.

TEMPERATURE COMPENSATION

The present oscillator inductance has an inductance loop inside the former which is varied axially by two metal rods, one constructed of a metal having a low co-efficient of expansion, and the other a high co-efficient of expansion, thereby varying the inductance with a change of temperature.

A small additional amount of temperature compensation was found necessary, and a negative co-efficient condenser was connected across the tuned circuit. A suitable condenser is made by Ducon, and is a ceramic 3-30 pF. type, with the plates silver sprayed onto the ceramic. The type should be the N500, the one marked N.P.O. is a zero drift and is not suitable. The capacity of the negative co-efficient condenser should be increased in steps, and the lumped capacity decreased in the remainder of the circuit until correct compensation is obtained. If the above type of condenser is not obtainable a fixed ceramic of 50 or 100 pF. (N750) in series with an air trimmer will also serve the purpose.

The e.c.o. and crystal should be made to beat preferably on about the 1.675 Mc. check point, and temperature compensation adjusted there, this will ensure that the greatest stability will be in the Amateur bands where it is most needed.

A large number of check points are audible throughout the range 1.5 to 3 Mc. covered by the meter, but only the

main ones are used. When the meter is calibrated they should be noted in a similar manner to the BC221 Frequency Meter.

CONSTRUCTION All components in the p.a. section were removed, and also those in the oscillator compartment except the variable condenser, inductance, range switch, and temperature compensated condensers controlled by this switch. Some of the screws holding the components are glued into position and can be removed by softening the adhesive with paint thinner.

The height of the new chassis fitted to the p.a. section must be governed by the components used. In the Writer's case the function switch (which replaced the antenna output switch) was mounted, and the chassis then placed in position so that there was sufficient clearance between the two. Another point to watch is that there is still enough room above the chassis for the valves. Metal valves were used for obvious reasons. The VR150/30 regulator tube rises above the rear wall by about half an inch, so the perforated metal cover was cut to allow the valve to project. When the unit is placed in its case there is still clearance between the top of the regulator and the case.

The oscillator valve socket is mounted on the partition wall, and the valve protrudes above the chassis in the old p.a. compartment. The 6K5, 6S37, and crystal are mounted vertically in front

of the power transformer, with the regulator tube and rectifier to the right of the power transformer, and in front of the latter two tubes are placed the audio transformer and the crystal oscillator coil.



The antenna terminal is mounted at the top-centre of the front panel, with the phone jack in line at the bottom of the panel. The corrector condenser is located in the bottom of the oscillator section, this condenser being used to bring the crystal check points to the predetermined dial reading.

CALIBRATION Calibrating the frequency meter is best done by using a frequency divider giving 10 Kc. points. If the output of the frequency meter is tuned in on a receiver at five times the fundamental, 7.5 to 15 Mc., and beat against the 10 Kc. points at this frequency, readings will be obtained every 2 Kc. on the fundamental. A calibration book can then be drawn up, and the crystal check points noted at the bottom of each page.

Alternatively a graph could be prepared covering the four ranges, and the crystal check point readings listed.


With due care in construction and adjustment of this frequency meter, extremely accurate results can be obtained, which will be more than ample for our requirements, and you will have virtually "the poor man's Bendix."

The writer wishes to thank Mr. J. Duncan (VK3VZ) and Mr. J. Groves for their assistance and suggestions in the conversion of this tuning unit.

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IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

MAY, 1949

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

These charts refer to the following world zones:—

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3	N.-West America	San Francisco
3a	N.-East America	New York
4	Central America	Barbados
5	South Africa	Johannesburg
6	Far East	Manila

The forecasts have actually been prepared for point-to-point circuits between either Canberra or Perth and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South-Eastern Australia and from Western Australia to the various world zones. No forecasts are given from Perth to zones Z2 and Z4 for the current month. Chart P-Z2 would be essentially similar to P-Z1 while chart P-Z4 would be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, zones 1 and 3a, it is necessary to consult both the short-route (s.r.) chart and the following long-route (l.r.) chart.

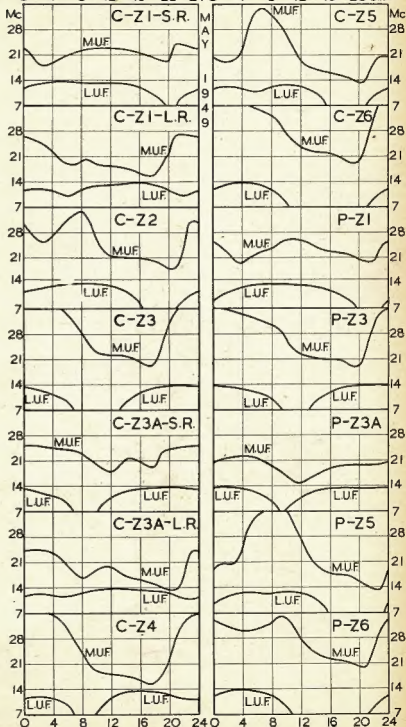
QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular answers to the following questions on the Canberra-Far East circuit for May would be useful:—

1. Was the 28 Mc. band available from a few hours before midnight to a few hours before noon G.M.T.?
2. Were conditions noisy on 14 Mc. for several hours in the early morning, but good for the rest of the Greenwich day?
3. Were best conditions experienced on 7 Mc. from 11 hours to 21 hours G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the month.

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS



Results of Frequency Measuring Contests

The following are the results of the Frequency Measuring Contest, held on 25th March and 1st April:—

1st Prize—VK3BB A. E. Budge, 33 Paytons Street, Morewell, Vic. (£3 order for radio gear).

2nd Prize—VK3YS F. G. Ball, 62 Shannon Street, Box Hill (£2 order for radio gear).

Special Prize for best use of home-built equipment—VK3ACM C. R. Mackenzie, 34 Orange Gve., Camberwell.

The full list of entrants, in order of accuracy are appended, the second figure being the average error in cycles per second. The figure in brackets is the number of frequencies submitted by the Competitor.

As was expected commercial frequency meters were very much to the fore, BC221s being used by competitors in 1st, 2nd, 3rd, 7th, 8th, 10th, and 15th places. VK2RA used a commercial permeability tuned v.f.o. which was the i.f. unit of the AT13 transmitter, and calibrated it against a 200 Kc. crystal oscillator. VK2QL hand calibrated an SCR211 and used it to win 5th place.

The most meritorious use of home-built equipment was judged to be VK3ACM, whose equipment was a home-built v.f.o. (e.c.o. 6SJ7, 1852 untuned class A amplifier, with a regulated power supply). Ten entries were submitted by this entrant, and his average error was 189 c/s.

VK5RR had an unusual set up, to quote: "Home constructed receiver, permanently tuned to 5KA at 1200 Kc., single tube v.f.o. with L/C constants at

50 Kc., adjusted exactly to this frequency by zero beat with 5KA at its 24th harmonic, and a heterodyne frequency meter on the broadcast band which can be corrected at any time by zero beat with 5KA, the 6th harmonic of which is 7200 Kc., with check points by means of the 50 Kc. standard at 7150, 7100, 7050, and 7000 Kc."

The remaining entrants' home-built equipment in brief was:—

VK2GU.—Home-built frequency meter, with 200 Kc. crystal, and 20 Kc. multi-vibrator.

VK3XB.—Home constructed frequency meter using single 1D8GT with pentode as 3.5 Mc. band osc., triode audio amp.

VK2ZC.—100 Kc. oscillator, 10 Kc. multi-vibrator, and calibrated b.f.o. oscillator to interpolate 10 Kc. spots.

VK3ADF and VK3ADG used Class C Wavemeters. VK3GS used a BC348 receiver calibrated against 100 Kc. crystal in Hammurud Frequency Oscillator Unit.

As will be seen from the results, 15 of the 17 entrants obtained an accuracy of under 400 cycles which is excellent measuring, and the entry of VK6DD who measured all 10 frequencies and had an error of only 286 cycles was remarkable.

For the information of entrants, the frequencies given by the Standard Frequency Service are appended, and the Judges wish to thank all concerned for their entries, and especially to the Measuring Service which co-operated so fully.

DETAILED RESULTS OF CONTEST

Call Sign	Error in c/s.	Frequencies Submitted
1—VK3BB	121	(7)
2—VK3YS	141	(5)
3—VK3PW	146	(5)
4—VK2RA	157	(8)
5—VK2QL	170	(5)
6—VK3ACM	189	(10)
7—VK2ZB	197	(10)
8—VK3AWW	220	(4)
9—VK5RR	235	(5)
10—VK6DD	286	(10)
11—VK2GU	287	(10)
12—VK3ADF	294	(6)
13—VK3XB	310	(5)
14—VK3GS	331	(5)
15—L. D. Sykes	393	(10)
16—VK2ZC	646	(4)
17—VK3ADG	1176	(10)

OFFICIAL FREQUENCIES

1—7003.744 Kc.
2—7049.700 Kc.
3—7094.065 Kc. (7093.826 Kc.)
4—7132.320 Kc. (7132.261 Kc.)
5—7163.120 Kc. (7163.091 Kc.)
6—7024.810 Kc.
7—7068.240 Kc. (7068.454 Kc.)
8—7107.520 Kc. (7107.391 Kc.)
9—7144.525 Kc. (7144.695 Kc.)
10—7192.878 Kc. (7192.868 Kc.)

The frequencies submitted by the winning entrant are in brackets alongside each Official Frequency.

C.W. Ratings for Several Radiotron Receiving Valves

Valve Type	Max. Plate Volts	Max. Screen Volts	Max. Grid Volts	Max. Plate Ma.	Max. Screen Ma.	Max. Grid (Note 1)	Max. Plate Dissipation (watts)	Max. Screen Dissipation (watts)	Power Output (watts) (Note 2)	Max. Freq. in Mc. (Note 3)	Grid-Screen Amp. Factor (approx.)
6AG7	375	250	—75	30	9	5	9	1.5	7.5	30	22
6AK6	375	250	—100	15	4	3	3.5	1	4	60	9.5
6C4	300	—	—100	25	—	8	5	—	5.5	60	18
6F6	400	275	—100	50	11	5	12.5	3	14	30	7
6L6	400	300	—125	100	12	5	21	3.5	28	30	6
6N7	350	—	—100	30†	—	5‡	5.5‡	—	14.5‡	30	35
6V8GT	350	250	—100	47	7	5	8	2	11	30	9

Note 1: 100,000 ohms maximum grid resistor.

" 2: Based on 70% plate efficiency.

" 3: Maximum frequency for full power output and input.

† Per Plate.

‡ Per Grid.

\$ Total.

Publication of this data should not be taken as an indication that all types mentioned are available from stock. Amateurs possessing any of these types will find the above chart a useful guide to maximum operating conditions. It should be noted that metal tube ratings given above do not necessarily apply to G and GT equivalents.—"Radiotronics," March-April, 1949.

VK'S ABROAD

Recently we have received letters from two VKs who are at present in Great Britain. As their letters are interesting, it is thought that readers would be interested to know what is going on in other parts of the world.

The first is from Elgar Treharne (VK3AFQ, now G3CST). He says: "I was very pleased to receive the invitation to attend the 6th Annual Exhibition of the R.C.M.F. Exhibitions, Fairs, and Conferences are very fashionable in London and one is continually amazed at the splendid display of components, especially at this show at the Grosvenor. There has been great emphasis on technical components from perspex lenses for the optical enlargement of the c.r.t. screen to high capacity electrolytics for a.h.t. supplies.

"For the Amateur a very wide range of co-axial cables, modulation equipment, transmitting condensers and other wanted components. There seems to be a score or more makers of loud speakers from 2½" diameter to the huge so called reflexed sound projectors. And there are just as many makes of pick-ups to stimulate these speakers.

"An interesting development of the thermistor is the 'Brimister'—a current sense resistor. The large negative temperature co-efficient characteristics of this device are exploited in this new component, one type of which has a resistance of 3,000 ohms at 20°C. and a resistance of 200 ohms when passing 0.1 Amp. Miniature components were represented, perhaps, not as much as I would have expected. There seems a great need for standardisation, espec-

ially with tubes—there is not only a multiplicity of almost comparable types, but the nomenclature seems to be designed with the express purpose of confusing the young player

"Please convey my congratulations to 'Amateur Radio'—the journal is really first-class these days, especially the technical articles on the conversion of service equipment to Amateur use."

The second is from W. H. Aiglar who had requested some W.I.A. information

"GREMLIN"

In the twelve months that this feature has been absent from the columns of "A.R.," signals emanating from Amateur stations, sloppy operating, the misuse of v.f.o.'s., etc., have gone from bad to worse.

Many requests for the return of "Gremlin" have been received by the Magazine Committee, and it has been unfortunate that the "Gremlin" has not been in a position to carry on with his good work.

However with the June issue this feature will re-commence. It will be written by a new "Gremlin," but will appear under a different name. The person responsible is one I have known for many years, whose interest is solely for the betterment of Ham Radio. He is an active transmitting member on all bands, and has been for many years.

—THOMAS D. HOGAN, Editor.

REVIEW

We have received from R. H. Cunningham & Co. a copy of the new 1949 Eddystone Component Catalogue, which as usual offers a most attractive range of components to the Ham. In addition to the lines already available, there are quite a few new lines which will have an immediate appeal to experimenters and these include Cat. No. 678 Modulation level indicator and field strength meter. Cat. No. 717 145 Mc. beam aerial kit and No. 709 145 Mc. tuning unit. Cat. No. 690 is a crystal calibrator containing two G.E. 1000 and 100 Kc. vacuum mounted crystals and is ideal for spotting down to 80 Mc.

The range of transmitting and receiving condensers has been expanded and offers many useful types for application up to 500 Mc. and above.

Copies of this Catalogue are available immediately from authorised Eddystone distributors.

LOCATION of RADIO RANGES

The location of the Radio Ranges mentioned in the article, "What No Beacons," in March "A.R." may not be known to readers.

We are therefore indebted to Mr. F. Hanham (VK3BJ) for supplying the following information:—

AD 33.8	Parafield, Adelaide.
AS 33.8	Alice Springs, N.T.
BN 33.3	Archerfield, Brisbane.
CS 33.3	Calra, Queensland.
CB 33.8	Canberra.
DW 33.8	Daly Waters, N.T.
DN 33.3	Darwin, N.T.
ML 33.8	Essendon, Melbourne.
TV 33.8	Garbutt, Townsville, Q.
PH 33.8	Guildford, Perth.
HB 33.8	Cambridge, Hobart.
HK 33.3	Holbrook, N.S.W.
KM 33.8	Kempsey, N.S.W.
MN 33.3	Mangalore, Victoria.
SY 33.3	Mascot, Sydney.
NH 33.3	Nhill, Victoria.
LT 33.3	Western Junction, Tas.

His letter reads: "Thank you very much for the pamphlet describing the activities of the Victorian Division of the W.I.A. It is very much appreciated as the Hams here are very interested in Amateur Radio in Australia.

"Since I've been in Coventry—since January—I've made quite a lot of good friends amongst the Hams here, and have joined the local radio society—Coventry A.R.S. They are a very enthusiastic and energetic body, holding their meetings every second week. I have recently taken out a licence for this country and hope to be on the air as soon as I am allotted a call sign."

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STATED FREQUENCY

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Mounted .. £2 10 0

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FEDERAL, CSL and DIVISIONAL NOTES

Federal President.—W. R. Grouse, VK3WG; Federal Secretary.—W. T. S. Mitchell, VK3UM, Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

Secretary.—Dick Dowse (VK2RP), Box 1734, G.P.O., Sydney.

Meeting Night.—Fourth Friday of each month at Concorde House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor:—H. P. Trehaner, VK2BM, 5 Wyndham St., Surferside.

Zone Correspondents.—North Coast and Tablelands: P. A. H. Alexander, VK2PA, Hill St. Port Macquarie; Newcastle: E. J. Baker, VK2FP, 13 Station St. Hillston; Newcastle, Coalfield and Lakes: H. Hawks, VK2VL, 27 Concorde Ave., Cessnock; Western: G. J. Russell, VK2QA, 115 Regan St. Nympan; South Coast and Tablelands: R. H. Sawyer, VK2AD, 42 Peritt St., Yass; Southern: E. N. Arnold, VK2QJ, 673 Forest Hill Ave. Albury; Western Suburbs: A. C. Pearce, VK2AHB, 49 Harbord Ave., Five Oaks; Eastern Suburbs: H. Kerr, VK2AX, No. 4 Flat, 144 Hewlett St. Bronte; North Sydney: L. D. Cuffie, VK2AM, 719 Allardy St. Mosman; St. George: J. A. Ackerman, VK2AB, 32 Park Rd. Carlton South; Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

Secretary.—C. C. Gull, VK3WQ, Administrative Secretary.—Mrs. D. Cross, Law Court Chambers, 191 Queen St., Melbourne, C.I.

Meeting Night.—First Wednesday of each month at the Radio School, Melbourne; Technical College.

Zone Correspondents.—North Western: B. R. Mann, VK3BM, Camberlout; Western: C. C. Waring, VK3VW, 12 Skene St., Stewell; South Western: G. H. Hine, VK3JH, 1000 St. John St., North Balaclava; North Eastern: J. A. Miller, VK3AG, "Ennville", Avenel; Far North-Western Zone: Harry Dobbin, VK3MF, 42 Walnut Ave., Adelaide; Eastern Zone: J. D. Chilver, VK3DJ, 20 Smith St., Geelong.

FEDERAL

DX C.C. LISTING

PHONE

VK1JD (86)	28 191
VK1JH (87)	28 192
VK1JZ (88)	27 108
VK1JW (89)	27 105
VK1JX (90)	27 106
VK1JY (91)	27 107

C.W.

VK1ON (92)	40 128
VK1VW (93)	40 129
VK1BZ (94)	40 132
VK1FV (95)	39 128
VK1SL (96)	39 129
VK1SD (97)	39 130
VK1DA (98)	39 113
VK1QJ (99)	40 113
VK1JL (100)	39 114
VK1KB (101)	39 104

New Member—

VK4RF (55)	34 103
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OPEN

VK4DI (5)	48 160
VK4BE (6)	40 158
VK4RU (11)	37 149
VK4HX (1)	138
VK4HG (4)	138
VK4HJ (5)	138
VK4M (6)	138
VK4NR (9)	38 126
VK4KX (10)	38 125
VK4Z (15)	38 123

New Member—

VK4RO (84)	100
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Endorsements in the form of a sticker are now being issued in the amount of 80 cents per sticker above the 100 required for the Certificate.

COUNTRIES LIST

In line with our note last month, it is understood that ex-DL Amateurs are now being issued with DL calls which will be DL3, 4, 5, 6, 7, 8, 9, in addition to the Occupation Prefixes prefixed as listed last month.

Sub-note for Germany.—DL in lieu of D (DA). For Palau Islands—add prefix KA. For Federal Republic of Germany—add prefix RGE. Add New Country—Heard Island (80) VK1.

WT HEADCAST

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcast.

VK2WL—Sundays, 1100 hours EST 7195 Kc. and 2000 hours EST 7214 Kc. No frequency checks available from VK2WL Intra-State working frequency, 7175 Kc.

VK3VW—Sundays, 1130 hours EST 7195 Kc. Individual frequency checks of Amateur Stations given when VK3VW is on the air

VK1WV—Sundays, 0930 hours EST simultaneously on 3750 Kc, 7195 Kc, 14342 Kc., 57.4 Mc. and 144.138 Mc. Frequency checks are given two nightly weekly, and the times are announced during Sunday broadcasts. 7010 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to 4W1

VK3VW—Sundays, 1000 hours SAT on 7195 Kc. Frequency checks are given by VK3VW on Friday evenings on the 7 and 14 Mc. bands.

VK6VF—Sat 2 p.m. Sun, 9.30 a.m. W.A.S.T. 9195 Kc. No frequency checks available

VK7WL—Second and Fourth Sundays at 0830 hours EST on 7174 Kc. No frequency checks are available

FREQUENCY ALLOCATIONS

Following representations to the P.M.O.'s Department by the Federal Executive, the Department have been made with effect as from the 1st May, 1948. Two new types of emission have been added, namely, o.b.f.m. (narrow band frequency modulation) type 6F2, and a.s.c. (single sideband suppressed carrier) type 6E. A substitution has been made for the old 144.5 to 148.5 Mc. band and we now have the Atlantic City allocation of 121.5 to 120.0 Mc. The list below is the up-to-date one for Australian Amateurs:—

3.5 to 3.8 Mc.—A1, 3, 2a, 6F2.
7.0 to 7.2 Mc.—A1, 3, 2a, 6F2.
14.4 to 14.6 Mc.—A1, 3, 2a, 6F2.
26.95 to 27.53 Mc.—A1, 3, 2a, 6F2.
28.0 to 28.0 Mc.—A1, 3, 2a, 6F2.
50.0 to 54.0 Mc.—A1, 2, 3, 2a, 6F2.
144 to 148 Mc.—A1, 2, 3, 2a, 6F2.
288 to 296 Mc.—A1, 2, 3, 2a, 6F2.
576 to 585 Mc.—A1, 2, 3, 2a, 6F2.
1000 to 1000 Mc.—A1, 2, 3, 2a, 6F2.
1200 to 1240 Mc.—A1, 2, 3, 2a, 6F2.
1600 to 1600 Mc.—A1, 2, 3, 2a, 6F2.
1600 to 1600 Mc.—A1, 2, 3, 2a, 6F2.
2100 to 2100 Mc.—A1, 2, 3, 2a, 6F2.
2800 to 2800 Mc.—A1, 2, 3, 2a, 6F2.

Note—6F2 emission represents a maximum deviation from the quiescent frequency of plus or minus 5 Kc.

THIRD PARTY TRAFFIC

It has been brought to our notice by officers of the P.M.O. Department that several deliberate breaches of Regulation 42, which deals with the handling of third party messages, have recently occurred. The P.M.O. Department take a very serious view of such contraventions and have intimated that any further cases will be severely dealt with. All Amateurs will receive notification of this matter in the Circular issued by the Department announcing the new types of emission. Also enclosed will be found Amendment No. 2 to the Handbook for the Guidance of Amateur Operators, January, 1948.

SLOW MORSE TRANSMISSIONS

Reports on these transmissions from Amateurs, would be Amateurs and a.w.s. would be welcomed by the Federal Executive. Direct Federal Secretary a note, and let him have your comments. The

QUEENSLAND

Secretary.—W. L. Stevens, VK4TB, Box 6381, G.P.O., Brisbane.

Meeting Night.—Last Friday in each month at the State Service Building, Elizabeth St., City.

Divisional Sub-Editor:—F. H. Shannon, VK4SN, Minden, via Rosewood.

SOUTH AUSTRALIA

Secretary.—E. A. Barber, VK5WD, Box 1234K, G.P.O., Adelaide.

Meeting Night.—Second Tuesday of each month at 17 Wymouth St., Adelaide.

Divisional Sub-Editor.—W. Parsons, VK5PS, 483 Explorator, Henley Beach.

WESTERN AUSTRALIA

Secretary.—W. E. Conon, VK5AG, 7 Howard St., Perth.

Meeting Place.—Padbury House, Cnr. St. George's Ter. and King St., Perth.

Meeting Night.—Watch the Monthly Bulletin.

Divisional Sub-Editor.—D. Couch, Mary Street, West Perth, W. Australia.

TASMANIA

Secretary.—J. Brown, VK7BJ, 12 Thirza St., Newtown, Telephone: W 1328.

Meeting Night.—First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.

Divisional Sub-Editor.—Capt. E. J. Cruise, VK7EJ, Angles Barracks, Hobart.

Northern Correspondent.—C. P. Wright, VK7LZ, 3 Knight St., Launceston.

various official W.I.A. stations conducting these transmissions are as follows:—

Sunday—VSWT, 1100-1158 A.S.T.
Monday—VSWT, 1000-1058 A.S.T.
Tuesday—VSWT, 0800-0900 A.S.T.
Wednesday—VKTW, 1810-1900 A.S.T.
Thursday—VKEW, not operating at present.
Friday—VKEW, not operating at present.
All of the above transmitting take place on 8504 Kc.

HEARD ISLAND REPORT

It is reported from Heard Island by VK1EF that early in February (presumably the first week) on his arrival, he logged the 50 Mc. signals from VK4BT at 813 which is good. Unfortunately Arthur did not have a transmitter on the air himself at that time. It appears that early contacts with Heard Island may be expected, especially from VK4.

Non. VK1VU, appear to have the urge for the DX, judging by the cards coming to light for him, and the fact that he worked some 200 odd DX stations in the first two months of operation receiving some 30 odd countries.

P.M.G. AMATEUR CALL BOOK

Due to difficulties in arranging printing, the Call Book may not be available before June. We will endeavour to obtain the latest correction list until it is released.

FEDERAL CONVENTION

The 19th Annual Federal Convention, held over the Easter holidays, was a success and many resolutions were considered—in all 33 Agenda Items and 25 General Business Items. A summary of the various motions and the result will be published in the next issue of "A.R."

Dr. Federal President's report indicated that a progressive year had gone by, and judging by the amount of work ahead as a result of the deliberations, another busy year is forecast.
Delegates who attended on behalf of the various Divisions were: Mr. John Moyle (SAU), N.S.W. Mr. Bob Cunningham (SML), Mr. Howard MacGregor (VW), Mr. Bob Barber (SMD), and Mr. Hal Austin (SLW); Mr. George Moss (SGM), W.A.; Mr. Joe Brown (VW), Tas., and Federal Executive Officers Federal President Bill Grouse (689Q), Federal Vice-President Mr. George Glover (8AO), Federal Secretary



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works twenty when possible. **SAEP, SXO and ZPA** busy with arrangements for Orange Zone Convention, they hope the day will be a success. A number of the some members are active on 10 and 30.

COASTAL/ELITE AREA LAURE
STU still active on 40 Mc, may break out on lower freq, has rig finished. **SXZS** picked up **AO4EP**, makes him 118 countries—38 zones post-war; reports Europeans good in mornings from 5 a.m. onwards. **SARU** running 15 watts on 30 Mc, has worked **STU** in Canberra, 58 report. **SXER** on 40 phone as usual. **SAIO** at the Entrance is going but no news on activities. **SOC** doesn't seem so active these days. No news of **STY STU** going again on 50 Mc after some re-building. Matland sports a new old Ham in **SAIA**. Nil from **STO, STZ or SKE** this month. **SXV** using some gear and "Clapp" oscillator. **SXS** has worked New Hampshire on 10 phone, only needs DeLuxe for W.A.S. Has using hot half waves, four above four and works the States up to 9 p.m. on 10 metres. **STU** still re-building and hopes to be in on about six weeks. **SADT** doing some band hopping from 10 metres to 144 Mc, a new rig is being used on 8 BT with good results.

WESTERN ZONE
STB active on 40 and 30. **SWH** getting his share of DX, collected **VR1ADP** on Macquarie Island. Zone Officers **SGA** returned from holidays after doing the rounds of the shacks. Recommends the hospitality of **SAJB**, put on two slots in Maxwell, break, nice work Mike. **SXE** active with a new Tx. **SIE** entertained **SADU** over Easter, but couldn't get near the microphone. **Bob** had it in both hands. **SVN** been entertaining **SAQQ**. **Bill** made a quick W.A.O. to show how to do it. **SDK** been heard on 40. **SAOT** will be farming and no prospects of an early return to Ham Radio. **SACU** and **SVH** made the Northern Zone's Convention at Orange. Day were invited to investigate the propagation properties of Larry "Nim" Doe. **SAIX** is back again in Orange, was heard over Easter. **SJG** active on 40, likewise **SDQ** with a nice drop of more. **Sil** with family and catwalk will be in Belmont for the car race. Congrats to **SNS** and his TP, will hear them both on the air soon. **SAFY** had the bad luck to get some 1,000 volts. **SLV** been doing a spot of recording on 50 Mc for the W.I.A. v.h.f. broadcast.
SLB inactive, spends a lot of time star gazing these days. **SEY** on 144 and getting down to town

from a badly shielded location. **SEK** been celebrating a happy event, has 167 up post-war. **STH** been talking conversation with **SXO**, no looks like some changes at St. Marys. **SAFO** building new gear, has microphone going on 144 Mc. **STI** been trying 144. **SAOP** back in Katoomba but not very active as yet.

SOUTH COAST AND SOUTHERN TABLELAND
During the month many of the zone stations have been contacted, and think honours go to **STW** for the improvements effected to his equipment and signal. Much attention to **STW**, went old No. 11 exciter has been replaced by a v.f.o. using "Clapp" and two class A isolator stages. **Stal** is an 807 with 40 watts input, for speech two stage transformer coupled to p.p. **SV6E**—crystal insert completes the line up and the effect is very pleasing. **STMN** passed through Yass en-route to the E.A.S. in Sydney. Has made a change of QTH, now at Young. Uses a **AT5/ABRS**, will be a W.I.A. member shortly. **SAIK** had some bad luck and ruined four tubes in his equipment, very badly regulated power supply in West Wyalong is probably the trouble. **SAIN** contacted while using complicated antenna system, a new mike has helped the quality too.
SAER is very QRL, changing houses and believe to date no one has been hurt in rushing the vacant house. **SPI** at MSH has a double conversion super but will spend a lot more time on it yet. The latest piece of gear is a "command Tx" as v.f.o. **SAJP** has been run to earth and has some fine gear operating. v.f.o.—**SV5-607-053** superheterodyne by 1605-617-16-056, dynamic mike. **SOY** of Goulburn has completed a "secret weapon" being we believe a Rx to end all Rx, no details direct but a little bird was active. **SVF**, **SV6** triest into 807 with 60 watts, has a 600 plate and screen modulating that inputs **SUE** very QRL doing a bit of unfortunate hitching, his TP is ill, we hope she soon recovers. **SON** active on 40 and 80, no details of gear. **SVH** active on 30 according to **STW**, **SVW** also DXing but not heard in Yass. **Eric Fisher, Jr.**, soon to be one of the active Hams in W'gon. **SAHW** at Balgownie on 40 with good phone signals using dynamic mike, commercial rigging. **SJQ** active on 40 has a new car and plenty of work. **SAIS** has completely rebuilt new rig using v.f.o. and 807 final, mod. pair **SV6E**, all built into an **AT5** frame, very compact. **SGU** heard

working **SAIA** but duty called and Arch had to "relieve". To catch a popular phase of **SWH**. Congrats to Trevor **SXS** and his TP, heard from many stations during their honeymoon. **SGA** "The Voice of Nyngun" was heard from stations far removed during the holiday. Visitors through Yass during the month included **STMN**, **ERT**, **KANZ**, and **TVE**.

VICTORIA

A.O.C.P. CLASS

The Mornington Peninsula Sub Branch of the Eastern Zone of the W.I.A., located at the Army Signals School, Balcombe Camp, is commencing a class for those desirous of the Mornington Peninsula of obtaining an A.O.C.P. license.
It is intended to bring students gradually up to the stage with theory, Morse and regulations that will enable them to pass the P.M.G. examinations. Prospective students are asked to contact **Levi** Wright at the Army Signals School at Balcombe for further details. Commencing date for the class is 9th May at 7 p.m. in the Omb Rooms at the School.

SOUTH WESTERN ZONE CONVENTION

Saturday and Sunday, 2nd and 3rd April, the gang of the South Western Zone held their Convention at Colac. Around the tables at dinner one could see **SBE**, **SA8V**, **SBI**, **SAIO**, **SAKI**, **SAKR**, **STB**, **SABV**, **SAQC**, **SEQ**, **SEU**, **SIC**, **SIRU**, **SKE**, **SAES**, **SAOV**, **SAPO**, **SYE**, **SWT**, **SAMP**, **SA8K**, **SBW**, and **SUT**; following visitors: **SEU**, **SUE**, **STM**, **SAML**, others present were **B. Sadler**, **C. Chumrada**, **E. Giddings**, **D. Brook**, **R. Moline**, and **R. Carter**.
Saturday afternoon the chaps pulled into the shacks as they arrived in Colac, Sunday the boys had a look over the broadcast station **SGN** and I heard some have new ideas for their new rig. From what I hear all enjoyed themselves, and thanks go for the good job the Colac gang did.
Heard that **SV4** is after an **ARSS** receiver when he goes to Sydney and is taking **SRV** as bodyguard. Later in that **Bob** has folded his apron on 30 with good results, what about the gentlemen's hand **Bob**, no hear.
After that an egg bug has struck **Ballarat** as **SBI** and **SA8V** were in dry dock (bed) with eye trouble, looking where they shouldn't. Some good news from **Bellin** gang is that **BPP** works 10 am



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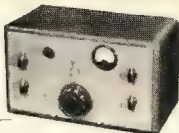
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The following is a list of Council Members and their official positions in VKS for 1948:—President, H. Austin (8AW); Vice-President, P. Wreford (5DW); Treasurer, C. Brown (2XU); Secretary, R. Barber (3XU); and Treasurer, R. Austin (5DA); Asst. Secretary, J. Leidler (5TU); Programme Organizer, R. Kelly (5LW); Disposal Manager, G. Ramsey (GGD); Membership Organizer, J. McAllister; Associate Representative, J. Paris; Publicity Officer, W. Parsons (5PB).

Now for the Mt. Gambier notes. 6GJ is in the throes of loose couplings and is beginning to wish that he had taken "Up cabinet making as a hobby". The a.c. mains are creeping slowly but surely towards 230 volts, and he is glad to hear that the TP still thinks Ham Radio is OK. 5MS is now using a "T2" type aerial (I don't know whether the name has anything to do with the note). However, it seems to be working OK. Lots of DX are having their first QSO with 5MS. He has also fitted hand speed to his ARS and automatic control to his transmitter.

6RU has been trying himself out on 30 s.w. lately. He also carried out a few modifications to his No. 4 receiver. 5PD, as anticipated, is now on a.c. and finds that he is getting a much higher voltage to his electrolytic condenser. He claims that one well known make of electrolytic condenser is much better than the "bombs" we used to handle on 30 metres. He has been working on 40 and 80 metres while still building his new gear.

6OI has not had very much time for Ham Radio this month. Has been very busy at the "veg" (no relation to 6KU) factory as acting manager. Has kept the cuberbs from his gear on 30 and 40. He also has a very elaborate system of relays ready to go into action. 5JA resting on his past efforts, I think. He would like me to tell all the v.h.f. experts that he has a crystal controlled transmitter on 6 and 8 metres, a beam on each band and also a good receiver on each band just waiting for some signals. 5TW still concentrating on 10 c.w. using a vertical aerial. Threemeters up to 40 phons. 6GJ has completely re-built the receiver incorporating bandswitching from 30 Mc. to 580 Kc.—now on 580 volt a.c. using 1850 in p.a. modulated by pair of 6V6s.

"Dorothy Dix" Parsons is still in business and I received a letter from "Harassed Parent" seeking my advice. He gave his call sign and QTH which makes all clear. "Harassed Parent" wants to know how he can stop his one year old baby from howling every time Daddy makes a move toward his shack to go on the air. Hey, oh boy, is this one right up my "Boonville" alley. With fourteen children, I'll say. If baby starts to cry, then go and get a small hairbrush and gently stroke the little head, sorry folks, after the little darling's hair very softly backwards and forwards in a soothing motion. Should the sweet little thing not stop within fifteen minutes, then reverse the baby and the hairbrush and go to it. It never fails!

Although I am on holidays and determined to "loaf" and do no more work than I can help, these notes don't seem very representative of VKS and am puzzling my brains for (what passes for brains) as to what I can tell you dear readers. I could tell you what "Doc" Barber (3MD) said when he received a phone ring from an irate Associate Member who wanted to know where his receipt for payment of his membership fee had gone to (after all "Doc" had had the letter 24 hours), but the Editor wouldn't print it anyway. I could tell you the real name of the Amateur with a EQ prefix named Boongo Bengo, living in a light-house in the Pacific (His job was to light the lighthouse light at sundown, and then it set at dawn), but I dare not; and I could even tell you why George Ramsey (5GD) only counts up to five when testing, but you wouldn't believe it, and just best not leave. I could tell you what Rose Kelly (5LW) said when on his recent fishing trip a crayfish put a struggle hold on a certain part of the anatomy of Rose, but it would burn the paper (and it was not "condemned" I). So there you are, I have tried to think of something but it is no good, so the best thing I can say is, for the benefit of those who have just joined in, please turn to the back page of March "Amateur Radio" and read, mark and inwardly, digest—YOU BEAUTY!

WESTERN AUSTRALIA

The March meeting was held on the 15th (third Tuesday). There were 41 members present, among whom were two newcomers, namely, 6LL and 6KU. Congratulations are in order for Frank Taylor, now proud parent of his A.O.C.T., and of course all sign coming up.

Our Secretary 6AG, being in VKS on business, 6RW took office. We also noticed that 5WH is our President for the coming year. 6RO was issuing receipts for things called sibs. March being the commencement of our financial year. All "non-members" please note!

6PC, our Emergency Net Officer, gave the good all from communications with our local Wireless friends, and we are now awaiting sanction of the P.M.G. to carry on with the organisation. In conjunction with the emergency net, a field day contest has been proposed for Easter Saturday, 18th April. My personal interest in being taken in the field day and it is hoped the weather will stay fine until after that date. By the time you read this, you will have had all, so later to be known for the results.

A Contest Committee was elected to organise contests in VKS and to make known all information of contests being organised throughout the world in which we can participate. 6VH, 6PTA, 6OM, 6GD, with 6RU representative to Conneti, form the Committee whose first work is our Easter Field Day. They will also be responsible for awards.

Both 6RU and 6RW voiced opinions relative to the Remembrance Day Contest, and our representatives to the Convention, 6GM, is well briefed on the subject.

After the usual rag chase followed an informal discussion on "V.F.O.s—Their Use and Abuse," conducted by most members present. Quite a few words were aired and four per cent passion exhibited so now we know what the other half think! "Piggy-back" QSOs also came into the subject and with 6WH as M.C. we listened to an instructive and informative debate. 6GX was to have given a lecture—we don't know what it was to have been about, but he never had time to give it anyway. 5DW was a visitor from Bruce Rock and was pleased to make many personal contacts with Perth-ites he had worked. The meeting closed at 10.30 p.m.

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PERSONALITIES

6DJ is developing a new Ham language. We hear "modgies" and "counties" and wonder if Bill is looking for a new club with some com. At the 7 Mc. track, did it run over the mike lead Dick? What about 6RS with his VFO3BPMQ? (anagram for QRM)

6LW has his rig on 7 Mc. again. That's a big jump from 50 Mc. Wal. Hear that Grace and Wal. say they'll show up on 20 Mc. again. Have you heard that the ZLs and ZS have their beams on you two in Albany? 6MG was the only VK6 on the air during the Perth black-out. He and 7 Mc. had to himself. 6CD was pleased to contact a ZL on 7 Mc. the other week-end. Should be more of it Don!

6SW, with his "Dipole" oscillator as v.f.o., is scoring lots more contacts. What's the D.C.C. score now Norm? 6WP putting out a signal after all these years. We hear that 6WV has been up and down—what about turning on loose Bill! 6WS very active on all bands lately. We know Skipper has a good site for the next field day. 6DX was in town recently after a tour of the S.W. with Mrs. DX. It was about time you collected those QSLs Bill. Did you get one from 6WV?

6AH is coming back to life again. Good show Stan—what about 6BH too? 6AB has things on the air from Bill's Creek. Also like the lack of local QRM. 6WV broke through to 6WV. 6WV on 14 Mc. Doesn't happen often enough does it Bert? 6MW has promised us bigger and better signals. It's about 6WV struck his old form. 6WV came down to Albany and Perth for a holiday. As soon as Ray gets home he works a stack of new countries—wonders what he has missed being away. 6RB on 7 Mc. called respite from DX. Foster has a v.f.o. on the way now. 6TP in his new home at Mt. Hawthorn will have his rig on the air just as soon as he has laid out his new shack. 6MB has joined the regulars on 28 Mc. now that the South Americans are breaking through. 6LA permanently on 28 Mc. lately—what about getting that v.f.o. going Charlie?

6FR is finding a little more time for Ham Radio these days. 6HW had a very large amount of signal on 7 Mc. the other day. 6WV I need a new receiver Ray? 6EL scoring some nice DX on 28 Mc. How's the Petermaritzburg situation? What about putting 6CN on the band? Also hear that 6WV is coming to 6HDH. Chas has his DX while DX is away, OK?

6RK hooked an aircraft in flight. That's a good effort Keith, but how 6DD was busy collecting some Europeans on 28 Mc. 6DD also getting his share on that band. 6KU didn't like being top of the list last month so he "bottomed-out" this time Ray.

TASMANIA

The April general meeting was held as usual to the Royal Photographic Society Rooms (sounds good doesn't it). Only about 20 members were present, which is a poor show considering there are as much business in the shape of the Federal Convention Agenda to be discussed. What about it then, the Committee desire your thoughts and ideas on these matters too!

Our worthy President 7LJ and 7XA told us of a publicity stunt that had been conducted through the courtesy of commercial station 7HO (I think it was 7HO, I). The stunt was a contest according to the doings. Nice work Charlie and Len—just the stuff to give the troops. Melbinks we did a lot better on these lines and so build up a bigger and better Division.

On Sunday, 10th April, we held a Field Day and it took the usual form of a d.f. hunt. Yours truly had a good time, but it was a bit of a disappointment (not getting in first) and was closely followed by Barney Watson, Len Jensen 7LJ, and then Crosby Walsh 7CW.

The transmitter was situated at Howrah, only about eight miles from the starting point, but even at that it was a very creditable effort. Barney—25 minutes just about constitutes a record. I think it is about time we introduced a handicap system, possibly weight of man for age (or ear) and then I might get a go myself.

Our first newcomer 7KA is frantically building his rig. He has a good frame and is doing it on his own. 7M using a Type A Mark III. Nice going Ken, I hear the new rig is an example of 7HO.

Young Brian Ball is camp with the Citizens Army the other day, having a whale of a time with a 128 set. Brian has passed the A.O.C.P. 1st class. He has been doing well. How about it Brian—since you were on the air?

Sleepily turning the dial over the 14 Mc. band a few evenings ago, I heard 7SK calling CQ—no CQ DX. I don't know what was more surprised, Max, myself or the QST that came back and gave him 5-2. Nice work Max out of the blue, that one, for a phone contact.

I have very much pleasure in reporting that 7SK won the phone section of the National Field Day Contest. A very creditable performance for a new Ham. Max had been on the air, exactly 30 days prior to the Contest. The rig used was finished only a few hours before starting time, it consisted of two No. 19 generators for the power supply, the two 500 volt windings in parallel for the p.a. one 275 volt tapping for the exciter and the other for the modulator, a 125K7 a.c.s., a 6V6 buffer, a 6V6 doubler, and a 1625 in the final, comprising the transmitter, whilst the modulator was a pair of 6AR5 with the usual speech line-up, plus a dynamic mike.

The whole "cathoon" as Max called it, had an input of 6.5 watts, from two 6 volt batteries, fed into a few beams, with a random length of twisted powerflex. The tower was built for himself, a piece of Sd 73, had 120 feet legs, 32 feet high, angled at 80 degrees. The station was located in an apricot orchard at Howrah and it is rumored that certain people won't eat apricots again. That's a pity. Oms, don't forget to let me have your news and views you would like to see published.

NORTHERN ZONE

The usual monthly meeting of this zone was held at the Wills & Co's. room on Friday, 4th April. There was a large attendance of members and the evening was taken up with a discussion on the agenda paper for the Annual Federal Convention.

Most of our members have been very inactive during the last month, this was possibly due to the poor conditions on the bands. Even the 144 Mc. operators have been very quiet, the exception being 7BQ who has built for himself a very nice crystal controlled rig which is performing admirably with output and quality comparable to Len's 7 Mc. transmission.

DX has appeared to me to have been very poor, however 7KB informed me that conditions on 6 Mc. have been excellent for the African continent from 0100 hours onwards, lan has worked many

FIFTY AND UP

VICTORIA

50 Mc.—There has been more activity on the 50 Mc. band this month than last, mainly due to interest being shown in a surprise appearance. Very few night stations are to be heard carrying out cross band tests. Some sporadic E openings have so helped to keep the band busy. The interest was on the 4th of March at 2130. The first was heard by several stations at 89 but no contacts were made. Next, between 2000 and 2100 on the 21st, the VKs showed a surprise appearance. VK6 in Yinnar worked VKERT, 2AJ, and 2BW; VKSDI in Longwatha worked VKERT, 2FPR, and 2RV, and several Melbourne stations had contacts with the VKs. The next night VK6HR was heard for a short time, while on the evening of the 23rd the VKs again came through, although this time signals were not so good and not many contacts were made. After these openings there was a lull until the 3rd of April when VKSDA heard 2BW working a VKT at 2100.

3U1 at Tatura is on the band every Saturday evening looking for (and contacting) Melbourne stations. 3A7 in Shepparton has his new rig going and has worked 2ACCL in Red Hill with good signals. 3H2 has his new rig going but lacks a suitable antenna at the time of writing.

144 Mc.—There is not much to report this month mainly due to a drop in activity on the band, the reason for which, as yet, is unknown. So many clubs have gear for the band. How about getting on a bit more often?

Two new stations have appeared on the band. The first is 3PZ, a new 6AS oct. 6AS oct. 6AS doubler with an 8 Mc. crystal, 616A tripler, 823A tripler, and 815 final with 40 watts input. The second is 3WV, a new 6AS oct. 6AS oct. 6AS doubler and oscillator. Albert has had time to put up

countries on the dark continent that I haven't even considered as possible, even in my wildest dreams.

According to previous years, Central and South American stations should have been breaking through during the evenings of February, March, and April, however it has only been lately that this direction has been audible of an evening at all and during the past week 3XA, 8PAC, 7A, CMA, 7YA, 4L and VP1, 4, 3 and 5s have been heard at good strength. Best QSOs from here were VP4TB, who worked quite a few VKs on the evening of 11th April on 14010 Kc, and 854AJ on 7.1, 8 Mc, at 2100 hours.

On phone VK4IDS has been a good contact and worth the battle to those managing to get through the du. Incidentally, Ron informed me that in future he will not answer anyone within 10 Kc. of his frequency.

28 Mc. has been very patchy with the ZLs appearing to get most of the plums. European stations have been fairly good of an evening up till approximately 10 p.m. and towards the end of March the Africans came through one Saturday afternoon and gave 7BK some good phone QSOs. That weekend Ray worked five continents on 28 Mc. phone.

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an outdoor antenna yet, but judging by his signal from an indoor dipole he should be one of the loudest on the band when he does. 3AMJ is using a 535 transmitter, a modified 535 receiver section, and a dipole 26 feet high. Ray is putting out a good signal and has materials on hand for a stacked beam.

3LH has constructed a 24 element beam (11 driven elements and 13 reflectors) and has been busy tuning it up for best results. He has not had it on the air yet, stations near by are reported to be replacing their aerial coils with ones wound with 8 gauge wire.

3ABA and 3YS have their new 30 and 144 Mc. rig with an 829B final working now. They run 90 watts since they have finished their new modulator using class B 2A3s. Needless to say they have a signal worthy of such a rig.

3ARE has new receiver called BL4 and it's hot from what Ed told the boys on 144. He is putting up a new 10 element rotary beam on top of 71 ft. stick. Other day 3ARE worked 842D, 3ANW, and 3BU with 55 to 60 watts input. 3BU worked 3ANW, this is Bill's best DX, a distance of 85 miles. 3VFP worked 3ARC and 3ED with good signal reports both ways. 3EQ has started on 144, also 3ZU and 3UT will be on that band soon looking for DX. He has also heard that 3ARE is interested in 144 Mc. also.

576 Mc.—This band has been receiving a great deal of attention in Melbourne. Not many contacts are being made as yet, but many clubs are busy building gear for this frequency.

3NW has re-built his gear to a more satisfactory form. He now uses push-pull 8L18s with plate and cathode lines for the transmitter and a super-regenerative receiver using a 2C40 lightwave tube, which seems to be very sensitive. The gear is built with

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Mntg: U1 11 "S" is 2 1/2".

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ITEM 78.

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Mntg: V810 Mod. "S" is 2"

ITEM 79.

TYPE NO. 1135

Primary: 230v 50 cps
Secondary: 115v 350 vA
Base: 5 1/2 x 5 x 4 1/2" H Wgt. 15 lbs.
Mntg: V15 "S" is 3"

ITEM 80.

TYPE NO. 1160

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Mntg: Special

ITEM 81.

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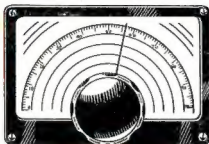


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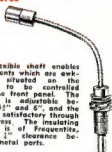
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